



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,279	02/01/2001	David Karl Bidner	200-0824	8275

7590

06/08/2004

Edward Timmer
c/o John D. Russell
Ford Global Technologies, Inc.
One Parklane Blvd., 600 East Parklane Towers
Dearborn, MI 48126

EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,279

Applicant(s)

BIDNER ET AL.

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 3/1/04. Claims 1-3,5-10, and 12-13 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,6, and 13, are rejected under 35 U.S.C.103(a) as being unpatentable over Sakai (4,715,467) and obviousness.

As per claim 1, Sakai discloses a method of controlling a vehicle drive having a 4x4 mode of operation and other modes of operation using an electronic control system providing a torque output in response to driver demand, comprising: controlling torque output of one of an engine and transmission of vehicle when the vehicle is in the 4 4 mode stored in system memory and indicating a relationship of torque output as a function of accelerator pedal position and a speed parameter for reducing sensitivity of torque output to accelerator pedal position in the 4x4 mode of operation (see column 5, lines 43-66), controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter (see column 6, line 46 to column 7, line 2).

Sakai do not disclose a calibration table. However, Sakai discloses in column 5, lines 53-55, "an

Art Unit: 3661

engine torque determining section 95 for obtaining engine torque T_e from a table with reference to engine speed N_e and accelerator pedal position B ", it is obvious that this is a calibration table indicating a relationship of torque output as a function of accelerator pedal position and a speed parameter.

As per claim 2, Sakai discloses the torque output comprises a transmission output shaft torque value determined in response to accelerator pedal position and transmission output shaft speed (see column 5, line 67 to column 6, line 16).

As per claim 3, Sakai discloses transmission output shaft torque is provided for a drive gear mode of the transmission (see column 3, line 62 to column 4, line 5).

As per claim 6, Sakai discloses the speed parameter is transmission output shaft speed for a vehicle drive comprising an automatic transmission (see column 7, lines 13-25).

As per claim 13, Sakai discloses the transmission is drivingly coupled to a first set of wheels, a transfer case is optionally drivingly coupled to a second set of wheels, and, in the 4 4 mode of operation, second set of wheels is driven via transfer case (see column 6, lines 17-59).

4. Claim 7, is rejected under 35 U.S.C.103(a) as being unpatentable over Taniguchi et al. (6,146,308) and obviousness.

As per claim 7, Taniguchi et al. disclose a method of controlling a vehicle drive having a 4x4 low mode of operation and other modes of operation using an electronic control system providing a torque output in response to driver demand, comprising: controlling torque output of one of an engine and transmission of vehicle when the vehicle is in the 4x4 low mode stored in system memory and indicating a relationship of torque output as a function of accelerator pedal position and a speed parameter for reducing sensitivity of torque output to accelerator pedal

Art Unit: 3661

position in the 4~~x~~4 low mode of operation (see column 14, line 54 to column 15, line 21), controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter (see column 12, lines 13-61). Taniguchi et al. do not disclose calibration table. However, Taniguchi et al. disclose in column 14, line 54 to column 15, line 7, the relationship between engine output torque, vehicle speed, and accelerator pedal, it is obvious that these relationship can represent in a calibration table for indicating the torque output as a function of accelerator pedal position and speed parameter.

5. Claim 5, is rejected under 35 U.S.C.103(a) as being unpatentable over Sakai (4,715,467) in view of Mikami et al. (6,549,840).

As per claim 5, Sakai does not discloses the speed parameter is engine speed for a vehicle drive comprising a manual transmission. However, Mikami et al. discloses the speed parameter is engine speed for a vehicle drive comprising a manual transmission (see column 26, lines 32-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Sakai by combining the speed parameter is engine speed for a vehicle drive comprising a manual transmission for controlling a four wheel drive automotive vehicle to obtain operator's desired value of the vehicle output torque.

6. Claims 8-10, and 12 are system claims corresponding to method claims 1-2,5, and 7 above. Therefore, they are rejected for the same rationales set forth as above.

Remarks

7. Applicant's argument filed on 3/1/04 has been fully considered and they are deemed to be persuasive. However, upon updated search, the new ground of rejection has been set forth as above.

In pages 5-7 of the amendment, applicant's argue that Mikami et al. do not disclose claim 1, torque output of one of an engine and transmission of a vehicle is controlled using a calibration table stored in system memory and indicating a relationship of torque output as a function of accelerator pedal position and speed parameter. This rejection has been withdrawn and the new ground of rejection Sakai reference as cited as item 3 above of claim 1.

In page 8 of the amendment, applicant's argue that claim 7, Sakai (4,715,467), and Pritchard et al. (5,853,342) reference are not properly combined to control torque output as a function of accelerator pedal position and speed parameter. This rejection has been withdrawn and the new ground of rejection Taniguchi et al reference as cited as item 4 above of claim 7.

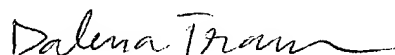
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



May 31, 2004***